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BAQ Engineering Services Division

Company Name	Mitsubishi Polyester Film, Inc
Permit Number:	TV-2060-0026

Permit Writer:	Kirk Schneider
Date:	DRAFT

SIC CODE: 2821 (PET Resins/MCPP Plant), 3081 (Film Plant)**DATE APPLICATION RECEIVED: May 1, 2017****DATE OF LAST INSPECTION**

The last inspection took place on July 12, 2016. No violations of permit conditions or applicable regulations were observed during the inspection.

FACILITY DESCRIPTION

Film Producer and Polymer Recycler

PROJECT DESCRIPTION

Title V Operating Permit Renewal.

CO-LOCATION DETERMINATION

From the Statement of Basis for Construction Permit 1200-0026-DF, the Department determined that the PET Resins/MCPP Plant (SIC Code 2821) and the Film Plant (SIC Code 3081) do not have a typical support facility type of relationship as discussed in the 1980 PSD preamble. The Department determined that this facility will continue to be considered as two sources under PSD. The PET Resins/MCPP Plant has a PSD threshold of 100 tpy whereas the Film Plant has a PSD threshold of 250 tpy.

CHANGES SINCE LAST OP ISSUANCE

Construction Permit 1200-0026-DH-R1 was issued on September 30, 2016 which authorized the construction of a new Film Line No. 10 and Tenter Ovens. The equipment and requirements of this construction permit were included in the Title V renewal.

SOURCE TEST REQUIREMENTS

This facility's PET affected sources are subject only to the testing and compliance provisions specified by 63.1318(a).

SPECIAL CONDITIONS, MONITORING, LIMITS

- This facility uses various types of control devices to control various pollutant emissions and comply with applicable limitations. To ensure that these control devices are working properly, this facility is required to monitor certain operating parameters for each type of control device. The monitored parameter(s), their operating ranges, operating specifications and monitoring frequencies are listed in Part D of the Title V Permit application.
- Condition C.12 of the previous Title V permit limits the PM and PM₁₀ emissions from Film Line No.9 to less than 25 tpy and 15 tpy to avoid SC Standard 7. Compliance with these limits are demonstrated by operating baghouses and calculating emissions. This will be continued.

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- Condition C.16 of the previous Title V permit limits each individual HAP emission to less than 10 tpy and the total facility-wide controlled HAP emissions to less than 25 tpy from Film Line No.9 to classify this facility as an area source for avoidance of 112(g) case-by-case MACT. Compliance with these limits are demonstrated by operating the Dowtherm Heaters as control devices and calculating emissions. This will be continued
- Condition C.15 of the previous Title V permit limits Total VOC emissions and Coating VOC emissions from Film Line 9 to less than 40 tpy and 32.6 tpy to avoid SC Standard 7. Compliance with these limits is demonstrated by recordkeeping and calculating VOC emissions.
- Condition C.18 of the previous Title V permit limits the total combined fuel oil use from the Dowtherm Heaters is limited to 2,600,000 gallons per year when using No 2 Fuel Oil with sulfur content 0.5% or 6,500,000 gallons per year when using No.2 Fuel Oil with sulfur content 0.2% or a prorated combination of the No.2 Fuel Oil with 0.5% sulfur and 0.2% sulfur. Compliance with these limits is demonstrated by recordkeeping and calculating emissions. This will be continued.
- Construction Permit 1200-0026-DH-R1 Condition C.8 limits each individual HAP emission to less than 10 tpy and the total facility-wide controlled HAP emissions to less than 25 tpy from Film Line No. 10 and Tenter Ovens to classify this facility as an area source for avoidance of 112(g) case-by-case MACT. The construction permit requires a one time performance test to verify emissions from the extruder vacuum pumps. Continued compliance with these limits will be demonstrated by analyzing the pH of the water used in each water ring vacuum pump daily during source operation to ensure that each pump is operating properly. The new vacuum pump technology used with this line acts as a scrubber. This was added to the Title V permit.
- Construction Permit 1200-0026-DH-R1 Condition C.9 limits Total VOC emissions and Coating VOC emissions from Film Line 10 to less than 40 tpy and 15 tpy to avoid SC Standard 7. Compliance with these limits is demonstrated by recordkeeping and calculating VOC emissions. This was added to the Title V permit.
- Construction Permit 1200-0026-DH-R1 Condition C.10 limits PM, PM₁₀ and PM_{2.5} emissions from Film Line No.10 to less than 25 tpy, 15 tpy and 10 tpy to avoid SC Standard 7. Compliance with these limits are demonstrated by operating baghouses and calculating emissions. This was added to the Title V permit.

FACILITY WIDE EMISSIONS		
Pollutant	Uncontrolled Emissions (tpy)	Controlled/Limited Emissions (tpy)
PM	1,953	257
PM ₁₀	808	135
PM _{2.5}	128	72.8
SO ₂	1,377	No Control
NO _x	385	362



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FACILITY WIDE EMISSIONS

Pollutant	Uncontrolled Emissions (tpy)	Controlled/Limited Emissions (tpy)
CO	118	No Control
VOC	295	221
Acetaldehyde (HAP)	71.3	60.3
1,4-Dioxane (HAP)	0.43	No Control
Ethylene Glycol (HAP)	30.6	19.5
1,3-Butadiene (HAP)	<0.1	No Control
Biphenyl (HAP)	1.3	No Control
Hexane (HAP)	0.04	No Control
Total HAP	103.7	81.6

OPERATING PERMIT STATUS

This facility operates under Title V Operating Permit; issued on December 6, 2012; effective on December 6, 2012; expires on December 31, 2017. This status has not changed.



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REGULATORY APPLICABILITY REVIEW

Regulations	Comments/Periodic Monitoring Requirements																																												
Section II.E – Synthetic Minor	<p>This facility has taken the following limits for prior construction projects in the listed emission units to avoid triggering a PSD significant modification for the specified pollutant:</p> <table><tr><th colspan="4">PSD AVOIDANCE LIMITS</th></tr><tr><th>Emission Unit</th><th>Process</th><th>Pollutant</th><th>Limit</th></tr><tr><td>24</td><td>Film Line No.9</td><td>PM</td><td>25 tpy</td></tr><tr><td>24</td><td>Film Line No.9</td><td>PM₁₀</td><td>15 tpy</td></tr><tr><td>24</td><td>Film Line No.9</td><td>Total VOC</td><td>40 tpy</td></tr><tr><td>24</td><td>Film Line No.9</td><td>Coating VOC</td><td>32.6 tpy</td></tr><tr><td>36</td><td>Film Line No.10</td><td>PM</td><td>25 tpy</td></tr><tr><td>36</td><td>Film Line No.10</td><td>PM₁₀</td><td>15 tpy</td></tr><tr><td>36</td><td>Film Line No.10</td><td>PM_{2.5}</td><td>10 tpy</td></tr><tr><td>36</td><td>Film Line No.10</td><td>Total VOC</td><td>40 tpy</td></tr><tr><td>36</td><td>Film Line No.10</td><td>Coating VOC</td><td>15 tpy</td></tr></table>	PSD AVOIDANCE LIMITS				Emission Unit	Process	Pollutant	Limit	24	Film Line No.9	PM	25 tpy	24	Film Line No.9	PM ₁₀	15 tpy	24	Film Line No.9	Total VOC	40 tpy	24	Film Line No.9	Coating VOC	32.6 tpy	36	Film Line No.10	PM	25 tpy	36	Film Line No.10	PM ₁₀	15 tpy	36	Film Line No.10	PM _{2.5}	10 tpy	36	Film Line No.10	Total VOC	40 tpy	36	Film Line No.10	Coating VOC	15 tpy
	PSD AVOIDANCE LIMITS																																												
	Emission Unit	Process	Pollutant	Limit																																									
	24	Film Line No.9	PM	25 tpy																																									
	24	Film Line No.9	PM ₁₀	15 tpy																																									
	24	Film Line No.9	Total VOC	40 tpy																																									
	24	Film Line No.9	Coating VOC	32.6 tpy																																									
	36	Film Line No.10	PM	25 tpy																																									
	36	Film Line No.10	PM ₁₀	15 tpy																																									
	36	Film Line No.10	PM _{2.5}	10 tpy																																									
	36	Film Line No.10	Total VOC	40 tpy																																									
	36	Film Line No.10	Coating VOC	15 tpy																																									

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REGULATORY APPLICABILITY REVIEW

Regulations	Comments/Periodic Monitoring Requirements
Standard No.1	<p>Steam Boiler No.3, Steam Boiler No.4, Dowtherm Heater No.4, Dowtherm Heater No.5 and Dowtherm Heater No.6 each meet the definition of a fuel burning operation as specified by SC Regulation 61.62.1.</p> <p>Each of the above sources are subject to Section I(B), Section I(C), Section II(A), and Section III.</p> <p>Steam Boiler No.3 and Steam Boiler No.4 are not required to have a COMS because they do not meet the size requirements specified by Section IV(A). Process Heaters are not specified by Section IV.</p> <p>A performance test for Steam Boiler No.3 and Steam Boiler No.4 are not required because they do not meet the size requirements specified by Section VI(A). Process Heaters are not specified by Section VI.</p> <p>No periodic monitoring of Steam Boiler No.3, Steam Boiler No. 4, Dowtherm Heater No.4, Dowtherm Heater No.5 and Dowtherm Heater No.6 is required by this standard.</p>



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REGULATORY APPLICABILITY REVIEW

Regulations	Comments/Periodic Monitoring Requirements
Standard No.3 (state only)	<p>This facility uses the Dowtherm Heater No.4, Dowtherm Heater No.5 and Dowtherm Heater No.6 to control VOC and HAP emissions. These VOC and HAP emissions do not come from the combustion of virgin fuel and so this standard is applicable. Each is classified as an industrial incinerator for the purpose of this standard.</p> <p>Each of the above units is subject to the opacity and PM limit specified in Section III(I). Compliance with the PM limit is determined by conducting a performance test. Section VIII(D)(5) requires that a performance test be conducted every 2 years for PM emissions from industrial incinerators but Section VIII(A) contains a provision that allows the Department to waive a test. The PM testing was waived for the Dowtherm Heaters (incinerators) because they are not controlling PM emissions.</p> <p>This facility is not required to keep records as specified by Section VI(C).</p> <p>This facility is not required to submit reports as specified by Section VI(D) because these only apply to sources incinerating hazardous or municipal waste.</p> <p>Per Section V(G)(1) and Section V(G)(2), this facility is not required to conduct waste analyses for each Heater.</p> <p>Section VI(A)(2)(h) states that continuous monitoring for industrial incinerators may be required as in Section VII(A)(2)(d) (Hazardous Waste) or Section VI(A)(2)(e) (Municipal Waste) depending on the material being incinerated or burned and source test results. Since the waste being incinerated is not a hazardous or municipal waste, monitoring is not required under either of these sections.</p> <p>The training of Dowtherm Heater operators is exempted as specified by Section IX(D).</p>



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Regulations	Comments/Periodic Monitoring Requirements
Standard No.4	<p>This facility determined it would have processes subject to Section VIII and these have not changed since the issue of the last permit.</p> <p>A visible emission limit is specified for boilers and heaters in Standard 1 and since the heaters are classified as industrial incinerators a visible limit is specified in Standard 3. All of the other equipment is not specified elsewhere and so each piece of equipment was assigned the appropriate opacity limit as specified by Section IX based on their installation/modification dates.</p> <p>All other sections of this regulation do not apply because they apply to types of equipment that this facility does not have. This facility also does not have any non-enclosed operations.</p>
Standard No.5	<p>This regulation applies to specific processes. This facility does not have any of the processes specified in this regulation.</p>
Standard No.5.2	<p>This facility has the following sources that combust a fuel and emit NO_x:</p> <p>(1) Steam Boiler No.3, Steam Boiler No.4, Dowtherm Heater No.4, Dowtherm Heater No.5 and Dowtherm Heater No.6 - These sources were constructed/modified prior to 2004, have NO_x emissions that have not undergone a BACT review, do not qualify for any of the exemptions specified by Section I(B) and each is classified as an existing source as specified by Section I(A)(2). Section IV(A) states that existing sources are not subject to Standard 5.2 until their burner assemblies are replaced. None of the burner assemblies have been replaced.</p> <p>(2) Fire Pump Diesel Engines - Exempt as specified by Section I(B)(1)</p> <p>(3) Propane and Natural Gas Fueled Emergency Engines - Exempt as specified by Section I(B)(1)</p>
Standard No.7	<p>For the purpose of PSD, the PET Resins/MCPP Plant (SIC Code 2821) and the Film Plant (SIC Code 3081) are considered as two separate sources under PSD. (See Co-location Determination).</p> <p>The PET Resins/MCPP Plant (SIC Code 2821) is specified as one of the 28 specific industry types (2819 SIC Code) for PSD applicability which specifies a PSD applicability trigger of 100 tpy while the Film Plant (SIC Code 3081) is not one of the 28 specific industry types (SIC Code 3081) and so its PSD applicability trigger is 250 tpy.</p> <p>Both plants are PSD major.</p>
61-62.6	<p>This facility has processes capable of generating fugitive emissions.</p>



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REGULATORY APPLICABILITY REVIEW

Regulations	Comments/Periodic Monitoring Requirements
40CFR60 and 61-62.60 Subpart Dc	<p>Subpart Dc (Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units) was reviewed for applicability.</p> <p>This subpart is applicable to Dowtherm Heater No.4, Dowtherm Heater No.5 and Dowtherm Heater No.6 as specified by 60.40c(a) because each was installed after June 9, 1989 and the maximum design heat input capacity of each heater is between 10E+06 Btu/hr and 100E+06 Btu/hr. This subpart is not applicable to Stream Boiler No.3 and Steam Boiler No.4 because they were installed in 1974 and have not been modified.</p> <p>When burning oil, each heater is subject to the limits specified by 60.42c(d) with averaging specified by 60.42c(g). This facility chose to comply with the applicable SO₂ requirements by limiting the fuel oil sulfur content. Compliance with the fuel oil limit is demonstrated by complying with 60.42c(h)(1), 60.44c(h), 60.46c(f), 60.11(a), 60.48c(d), 60.48c(e), 60.48c(e)(11), 60.48c(f)(1) and 60.48c(g).</p> <p>When burning Natural Gas, no opacity, PM and SO₂ emissions limits contained in this subpart are applicable to each heater because they do not meet the applicability requirements to be subject to these limits.</p> <p>60.48c(g)(1) requires that records be kept and maintained of the amount of each fuel combusted during each operating day except as provided by the alternatives in 60.48c(g)(2) and 60.48c(g)(3). Because each heater combusts Natural Gas and Fuel Oil using fuel certification they are eligible for the alternative specified in 60.48c(g)(2) which allows for records of the amount of each fuel combusted during each calendar month.</p> <p>All other requirements of this subpart do not apply to each heater because they do not meet the specified requirements to be subject.</p> <p>When burning oil, each heater is subject to the opacity limits and requirements specified in 60.43c(c) and 60.43c(d). This facility is not required to install a COMS on each heater as specified by 60.47c(a) and 60.47c(e). 60.47c(a) required that an initial test for opacity be conducted within 180 days of heater startup and that subsequent opacity tests be conducted as specified by 60.47c(a)(1) through 60.67c(a)(3).</p> <p>When burning oil, no PM emissions limits contained in this subpart are applicable to each heater as specified by 60.43c(e)(4). 60.45c(d) states that compliance with 60.43c(e)(4) is demonstrated by following the applicable procedures in 60.48c(f).</p>



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REGULATORY APPLICABILITY REVIEW

Regulations	Comments/Periodic Monitoring Requirements
40CFR60 and 61-62.60 Subpart Ka	<p>Subpart Ka (Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984) was reviewed for applicability.</p> <p>This facility's Distillate Storage Tanks were constructed during this time frame. These storage tanks store No.2 Fuel Oil and are not subject to this subpart because No.2 Fuel Oil is not a "petroleum liquid" as defined in 60.111a (Definitions).</p>
40CFR60 and 61-62.60 Subpart Kb	<p>Subpart Kb (Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984) was reviewed for applicability because this facility has Ethylene Glycol and Dowtherm storage tanks that store a VOL and were constructed during this time frame.</p> <p>This facility has 1 Ethylene Glycol Storage Tank with a capacity of greater than 151 m³ but it is not subject to this subpart as specified by 60.110b(b) as it stores a liquid with a maximum true vapor pressure less than 3.5 kPa.</p> <p>This facility has 8 Ethylene Glycol Storage Tanks with capacities between 75 m³ and 151 m³ but they are not subject to this subpart as specified by 60.110b(b) as each stores a liquid with a maximum true vapor pressure less than 15 kPa.</p> <p>This subpart does not apply to all of the Dowtherm storage tanks because their capacities are less than 75 m³.</p>
40CFR60 and 61-62.60 Subpart DDD	<p>Subpart DDD (Standards of Performance for Volatile Organic Compound (VOC) Emissions from The Polymer Manufacturing industry) was reviewed for applicability.</p> <p>63.1311(i)(1) states that after the compliance dates specified in 63.1311, affected sources producing PET using a continuous terephthalic acid process subject to 40CFR63 Subpart JJJ that are also subject to 40CFR60 Subpart DDD are required to comply only with 40CFR63 Subpart JJJ. This facility is subject to 40CFR63 Subpart JJJ and so this subpart does not apply.</p>



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REGULATORY APPLICABILITY REVIEW

Regulations	Comments/Periodic Monitoring Requirements
40CFR60 and 61-62.60 Subpart VV and Subpart VVa	<p>Subpart VV (Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for which Construction, Reconstruction, or Modification Commenced after January 5, 1981, and on or Before November 7, 2006) and Subpart VVa (Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for which Construction, Reconstruction, or Modification Commenced after November 7, 2006) were reviewed for applicability because this facility has processes that were constructed and modified in both time frames.</p> <p>60.480(a)(1) and 60.480a(a)(1) state that the provisions of these subparts apply to affected facilities in the synthetic organic chemicals manufacturing industry. From 60.481 and 60.481a (Definitions) synthetic organic chemicals manufacturing industry means the industry that produces, as intermediates or final products, one or more of the chemicals listed in 60.489. This facility does not produce any of the chemicals listed in 60.489.</p>
40CFR60 and 61-62.60 Subpart NNN	<p>Subpart NNN (Standards of Performance for Volatile Organic Compound (VOC) Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations) was reviewed for applicability because this facility has a distillation column.</p> <p>60.660 (Applicability and Designation of Affected Facility) states that this subpart applies to each affected facility that is part of a process unit that produces any of the chemicals listed in 60.667 as a product, co-product, by-product, or intermediate, except as provided in 60.660(c). The Luwa 1 Distillation Column recovers Triethylene Glycol which is on the list of chemicals in 60.667 and so it is the affected facility subject to this subpart as specified by 60.667(b).</p> <p>The Luwa 1 Distillation Column's design capacity is less than one gigagram per year and so meets the exception listed in 60.660(c)(5) which states that it is exempt from all provisions of this subpart except for the recordkeeping and reporting requirements in 60.665(j), 60.665(l)(6), and 60.665(n).</p>
40CFR60 and 61-62.60 Subpart RRR	<p>Subpart RRR (Standards of Performance for Volatile Organic Compound (VOC) Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes) was reviewed for applicability.</p> <p>60.700(c)(7) (Applicability and Designation of Affected Facility) states that any reactor process that is subject to the provisions of 40CFR60 Subpart DDD is not an affected facility. This facility's reactor processes would be subject to Subpart DDD but 40CFR63.1311(i)(1) states that Subpart DDD does not apply since they are subject to 40CFR63 Subpart JJJ.</p>



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Regulations	Comments/Periodic Monitoring Requirements
40CFR60 and 61-62.60 Subpart IIII	<p>Subpart IIII (Standards of Performance for Stationary Compression Ignition Internal Combustion Engines) was reviewed for applicability because this facility has Emergency Fire Pumps powered by diesel engines.</p> <p>60.4200(a)(2) and 60.4200(a)(2)(ii) states that for this subpart to apply to fire pump engines, the owner of a diesel engine must have commenced construction after July 11, 2005 and that the engine must have been manufactured as a certified National Fire Protection Association (NFPA) fire pump engine after July 1, 2006.</p> <p>Fire pump diesel engines No.1, No.2 and No.4 were manufactured before July 1, 2006 and so are not subject to this subpart.</p> <p>Fire pump diesel engine No.3 was installed and manufactured after the dates listed above and so it is subject to this subpart. This fire pump diesel engine has a displacement of less than 30 L/cylinder and so it must comply with 60.4205(c) which requires the engines to comply with the emission standards specified in Table 4 to Subpart IIII.</p> <p>The fuel used for diesel engine No.3 must meet the fuel requirements specified by 60.4207(b). The engine must be monitored as required by 60.4209 and demonstrate compliance with the applicable requirements as specified by 60.4211(a), 60.4211(c) and 60.4211(f). None of the notification, reporting, and recordkeeping requirements of 60.4214 applies to the engine. The Subpart A general requirements that apply to this subpart are specified in Table 8 to Subpart IIII.</p>
40CFR60 and 61-62.60 Subpart JJJJ	<p>Subpart JJJJ (Standards of Performance for Stationary Spark Ignition Internal Combustion Engines) was reviewed for applicability because this facility has a Propane fueled R&D Emergency Generator engine, Propane fueled Dowtherm System Emergency Generator engine, Natural Gas fueled CP Emergency Generator engine and Propane fueled Maintenance Emergency Generator engine.</p> <p>This subpart does not apply to these engines as they were manufactured before the applicable manufacture dates specified in 60.4230.</p>
40CFR61 and 61-62.61	<p>This facility does not have any sources that meet any of the applicability requirements of all the subparts contained in this regulation.</p>



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Regulations	Comments/Periodic Monitoring Requirements
40CFR63 and 61-62.63 MACT Area Source	<p>This facility requested to limit its HAP emissions to less than 10 tpy for each individual HAP and less than 25 tpy for total HAP emissions for Film Line No.9 and Tenter Ovens (Emission Unit 24) and for Film Line No.10 (Emission Unit ID 36) which classifies each line as an area source for MACT (Case by Case MACT Subpart B avoidance).</p> <p>The Film Plant is not subject to a MACT standard. The only conceivable way the Film Plant could trigger a MACT standard is if 112(g) was applicable to a project. This facility has avoided 112(g) for their recent projects (Film Line 9 and Film Line 10) by taking limits on their VOC/HAP emissions.</p>
40CFR63 and 61-62.63 MACT Major Source	<p>The Resin Plant is classified as a major source. The Pet Raw Material Section (Emission Unit ID 10) and Pet Polymerization (Emission Unit ID 11) have uncontrolled individual HAP emissions greater than 10 tpy and uncontrolled combined (total) HAP emissions greater than 25 tpy and so the Resin Plant is classified as a major source for MACT.</p>
40CFR 63 and 61-62.63 MACT Major/Area Source Subpart A	<p>Because this facility has equipment subject to Subpart JJJ, Subpart ZZZZ and Subpart DDDDD that equipment is also subject to 40CFR63 Subpart A (General Provisions).</p>



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Regulations	Comments/Periodic Monitoring Requirements
40CFR63 and 61-62.63 Major Source MACT Subpart JJJ	<p>Subpart JJJ (National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins) was reviewed for applicability because this facility manufactures PET using processes defined in 63.1312 (Definitions).</p> <p>This subpart applies because this facility determined that it would have 2 TPPU's as specified by 40CFR63.1310(a)(2) designated CP4 and CP5. As specified by 63.1310(a)(2) each TPPU is classified as an existing affected source. As specified by 63.1311(d) and 63.1311(d)(6), each TPPU had to be in compliance with 63.1331 no later than August 6, 2002 and as specified by 63.1311(d)(7) be in compliance with the pressure relief monitoring provisions of 63.1331(a)(9)(iii) no later than March 27, 2017.</p> <p>This facility does not have any storage vessels subject to 63.1314 and so this section does not apply.</p> <p>This facility's continuous process vents are subject to 63.1315(a)(1) through 63.1315(a)(10), 63.1315(a)(10)(v), 63.1315(a)(11), 63.1315(a)(12), 63.1315(a)(15) through 63.1315(a)(18), 63.1315(a)(19)(i), 63.1315(a)(19)(ii), 63.1315(a)(19)(iii), and 63.1315(d). All other sections of this subpart do not apply because they apply to processes this facility does not have or are compliance options this facility did not select.</p> <p>This facility's PET affected sources are subject to the emission control provisions specified by 63.1316(a), 63.1316(b), 63.1316(b)(2), 63.1316(b)(2)(i), 63.1316(b)(2)(i)(B), 63.1316(b)(2)(ii), 63.1316(b)(2)(ii)(B), 63.1316(b)(2)(v), and 63.1316(b)(2)(v)(A). All other sections of this subpart do not apply because they apply to processes this facility does not have or are compliance options this facility did not select.</p> <p>This facility's PET affected sources are subject to the monitoring provision specified by 63.1317.</p> <p>This facility's PET affected sources are subject only to the testing and compliance provisions specified by 63.1318(a). All other sections of this subpart do not apply because they apply to processes and control devices that this facility does not have emission limits that apply to the affected sources.</p>



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	<p>This facility's PET affected sources are subject only to the recordkeeping provisions specified by 63.1319(a) and the reporting provisions specified by 63.1320(a). All other sections of these subparts do not apply because they apply to processes and control devices that this facility does not have.</p> <p>This facility does not have any batch process vents and so 63.1321, 63.1322, 63.1323, 63.1324, 63.1325, 63.1326 and 63.1327 do not apply.</p> <p>This facility does not have any heat exchange systems subject to 63.1328 and any process contact cooling towers subject to 63.1329 so these sections do not apply.</p> <p>This facility's PET affected sources are subject to the wastewater provisions specified by 63.1330(a), 63.1330(b)(1) through 63.1330(b)(17), 63.1330(b)(19) through 63.1330(b)(22) and 63.1330(c). All other sections of this subpart do not apply because they apply to processes that this facility does not have.</p> <p>This facility's PET affected sources are subject to the equipment leak provisions specified by 63.1331(a), 63.1331(a)(2) through 63.1331(a)(8), 63.1331(a)(9)(i) through 63.1331(a)(9)(iii) and 63.1331(a)(11) through 63.1331(a)(13). All other sections of this subpart do not apply because they apply to processes that this facility does not have.</p> <p>This facility will not seek to comply with 63.1313(b) using emissions averaging and so 63.1332 does not apply.</p> <p>The additional requirements for performance testing specified in 63.1333(a) are applicable. 63.1333(b) does not apply as that section applies to a process this facility does not have.</p> <p>The parameter monitor levels and excursions specified by 63.1334(a), 63.1334(b)(2), 63.1334(c), 63.1334(d) and 63.1334(f) and 63.1334(f)(1) are applicable. 63.1334(b)(1) and 63.1334(e) are reserved sections and all the other sections apply to batch process vents which this facility does not have and storage vessels. This facility does not have any storage vessels subject to this subpart.</p> <p>This facility is required to keep the applicable records and submit the applicable reports specified by 63.1335 that are for their processes.</p>



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Regulations	Comments/Periodic Monitoring Requirements
40CFR63 and 61-62.63 Major/Area Source MACT Subpart ZZZZ	<p>Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines) was reviewed for applicability because this facility has Diesel Powered Fire Pump Engines, a Propane fueled R&D Emergency Generator engine, Propane fueled Dowtherm System Emergency Generator engine, Natural Gas fueled CP Emergency Generator engine and Propane fueled Maintenance Emergency Generator engine.</p> <p>63.6590(c) states that an affected compression ignition engine source that meets any of the criteria in 63.6590(c)(1) through 63.6590(c)(7) must meet the requirements of this part by meeting the requirements of 40CFR60 Subpart IIII or Subpart JJJJ, and no further requirements apply for such engines under this subpart. The Fire Pump Engine No.3 meets the criteria of 63.6590(c)(6) and is subject to 40CFR60 Subpart IIII so no further requirements from this subpart apply to this engine. Fire pump diesel engines No.1, No.2 and No.4 do not meet any of the above criteria and so are subject to this subpart as specified by 63.6585(a) and 63.6585(b). Each Propane and Natural Gas fueled engine is not subject to Subpart JJJJ.</p> <p>As specified by 63.6590(a)(1)(ii), the Fire pump diesel engines No.1, No.2 and No.4 and each Propane and Natural Gas fueled engines are classified as existing affected sources less than 500 brake HP and had to be in compliance as specified by 63.6595(a)(1) with the applicable sections of this subpart by May 3, 2013.</p> <p>As specified by 63.6602 each engine must comply with the requirements specified by Table 2c to Subpart ZZZZ Item 1 and Item 6. This section also requires that compliance with applicable numerical emission limits be based on the results of performance testing but no numerical emission limits are applicable to each engine from this subpart.</p> <p>Each engine must comply with the general requirements specified by 63.6605.</p> <p>No performance testing is required for each engine so 63.6610, 63.6611, 63.6612, 63.6615, 63.6620 and 63.6630 do not apply.</p> <p>As specified by 63.6625(f) each engine is required to have a non-resettable hour meter and each engine must be operated as specified by 63.6625(h), 63.6625(i) and 63.6625(j)</p> <p>No data is required to be collected for each engine to demonstrate continuous compliance and so 63.6635 does not apply.</p>

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Regulations	Comments/Periodic Monitoring Requirements
	<p>As specified by 63.6640(a), to demonstrate continuous compliance with the applicable requirements of Table 2c, this facility must use the applicable methods specified in Table 6 to Subpart ZZZZ Item 9 and operate each engine as specified by 63.6640(f)(1) through 63.6640(f)(3).</p> <p>63.6645(a)(5) exempts this facility from having to submit the notifications specified in 63.6645(a). All of the other notifications specified in 63.6645 do not apply as they apply to types of engines this facility does not have and to performance tests.</p> <p>This facility is not required to submit any of the reports required by 63.6650 and 63.6650(a) because this facility does not have any of the engine types specified in Table 7 to Subpart ZZZZ.</p> <p>This facility is required to keep the records specified by 63.6655(e), 63.6655(e)(2), 63.6655(f), 63.6655(f)(1) and 63.6660. All of the other recordkeeping requirements specified in 63.6655 do not apply because they apply to emission limits and operating requirements that do not apply each engine.</p>
40CFR63 and 61-62.63 Major Source MACT Subpart JJJJ	<p>Subpart JJJJ (National Emission Standards for Hazardous Air Pollutants: Paper and Other Web Coating) was reviewed for applicability because this facility coats film.</p> <p>This subpart does not apply to each Film Line. 63.3290 states that this subpart applies to existing facilities where web coating lines as defined in 63.3310 are operated. Each Film Line does not meet the definition of a web coating line as defined in 63.3310 and so this subpart does not apply.</p>



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REGULATORY APPLICABILITY REVIEW	
Regulations	Comments/Periodic Monitoring Requirements
40CFR63 and 61-62.63 Major Source MACT Subpart DDDDD	<p>Subpart DDDDD (National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters) was reviewed for applicability because this facility operates a boiler.</p> <p>Steam Boiler No.3 and Steam Boiler No.4 are subject to this subpart as specified by 63.7485. Each Dowtherm Heater is not subject to this subpart as specified by 63.7491(h) because they are used as control devices to comply with 40CFR63 Subpart JJJ.</p> <p>As specified by 63.7490(a)(1) the affected source is the collection of all existing boilers which Steam Boiler No.3 and Steam Boiler No.4 . These boilers are classified as an existing affected source as specified by 63.7490(b) and 63.7490(d) because it was constructed prior to June 4, 2010. As specified by 63.7495(b), this affected source had to be in compliance with the applicable requirements by January 31, 2016 and submit the required notifications as specified by 63.7495(d) and 63.7545.</p> <p>As specified by 63.7495(h), if this facility switches fuels or makes a physical change to a boiler that results in the applicability of a different subcategory after January 31, 2016, then it must be in compliance with the applicable existing source provisions of this subpart on the effective date of the fuel switch or physical change.</p> <p>As specified by 63.7499(u) the affected source (Steam Boiler No.3 and Steam Boiler No.4) is currently in the units designed to burn light liquid fuel subcategory. This facility states that Steam Boiler No.3 and Steam Boiler No.4 are designed and permitted to combust heavy liquid fuel but does not currently do so. If either boiler switches to fuels other than light liquid fuel and Natural Gas then this facility must conduct a new performance test within 60 days of burning the new fuel type as specified by 63.7515(h).</p>



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Regulations	Comments/Periodic Monitoring Requirements
	<p>As specified by 63.7500(a), the affected source (Steam Boiler No.3 and Steam Boiler No.4) is subject to the following:</p> <ul style="list-style-type: none">• The HCl, Hg, CO and PM emission limits specified in Table 2 to Subpart DDDDD Item 14 and 16• The work practice standards specified by Table 3 to Subpart DDDDD Item 1 and Item 4• The operating limits specified by Table 4 to Subpart DDDDD Item 7• If either boiler switches to burning heavy liquid fuel then the CO and PM emission limits specified in Table 2 to Subpart DDDDD Item 15 apply <p>As specified by 63.7500(f) these standards apply at all times the affected units are operating, except during periods of startup and shutdown during which time the affected units must comply only with Table 3 to Subpart DDDDD Item 5 and Item 6.</p> <p>As specified by 63.7505(c), 63.7510, 63.7520, 63.7521 and 63.7530 this facility demonstrated compliance with all applicable emission limits using performance stack testing and fuel analysis. This facility conducted the required test and fuel analysis on March 17, 2015 with the results demonstrating compliance with the applicable emission limits. As specified by 63.7515(h) subsequent performance testing is not required unless this facility decides to use another type of fuel.</p>



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Regulations	Comments/Periodic Monitoring Requirements
	<p>Since the affected source (Steam Boiler No.3) is subject to a CO limit in Table 2 to Subpart DDDDD, this facility selected the option to install, operate and maintain an oxygen analyzer system on each boiler as defined in 63.7575 as allowed by 63.7525(a). The definition of oxygen analyzer systems in 63.7575 includes oxygen trim systems. This facility installed oxygen trim systems on Boilers 3 and 4 and since it installed oxygen trim systems, Table 4 to Subpart DDDDD Item 8 states that this item does not apply since 63.7525(a)(7) sets the operating trim level. 63.7525(a)(7) requires that the oxygen trim systems be operated with the oxygen level set no lower than the lowest hourly average oxygen concentration measured during the most recent CO performance test as the operating limit for oxygen according to Table 7 to Subpart DDDDD Item 4.</p> <p>The affected source (Steam Boiler No.3 and Steam Boiler No.4) is in the unit designed to burn light liquid subcategory and it combusts ultra-low sulfur liquid fuel. As defined in 40CFR63.7515(h), further performance tests (stack tests or fuel analyses) do not need to be conducted if the pollutants measured during the initial compliance performance tests meet the emission limits in Table 2 to Subpart DDDDD providing that ongoing compliance is demonstrated with the emissions limits by monitoring and recording the type of fuel combusted on a monthly basis. The Department also concurs with Mitsubishi's determination that the boilers meet the requirements in Tables 4, 6, 7, and 8, by monitoring and recording the type of fuel combusted on a monthly basis as required in 40 CFR 63.7515(h). If this facility intends to use a fuel other than ultra-low sulfur liquid fuel, natural gas, refinery gas, or other gas 1 fuel, it must conduct new performance tests within 60 days of burning the new fuel type.</p> <p>To demonstrate continuous compliance with each applicable emission limit, work practice standard and operating limit, this facility must perform the applicable calculations specified by 63.7540 and conduct a tune-up of the boilers every 5 years as specified by 63.7540(a)(12) and 63.7540(a)(13). As specified by 63.7540(a)(10) this facility is not required to conduct an annual tune-up of the boilers because the units are equipped with continuous oxygen trim systems that maintain an optimum air to fuel ratio. The facility instead must conduct boiler tune-ups every 5 years as specified by 63.7540(a)(12) to demonstrate continuous compliance with 63.7540(a).</p> <p>As specified by 63.7550 and Table 9 to Subpart DDDDD, this facility is required to submit a semiannual compliance report containing the information specified in Table 9 to Subpart DDDDD Item 1(a), 1(b) and 1(c). It must also keep the applicable records as specified by 63.7540, 63.7555 and 63.7560.</p>



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REGULATORY APPLICABILITY REVIEW

Regulations	Comments/Periodic Monitoring Requirements
61-62.68	This facility does not store any of the regulated chemicals above the threshold quantities.
40CFR64 (CAM)	<p>This facility's PSEU's with pre-controlled emissions greater than 100 tpy are listed in the table below. All other PSEU's located at this facility have pre-controlled emissions less than 100 tpy.</p> <p>This facility has determined that only PSEU 27 is subject to the requirements of this regulation as listed in the tables below. All other PSEU's in the table below do not meet all three of the applicability requirements to be subject.</p>

PSEU UNIT DESIGNATIONS

PSEU ID	Description	PSEU Pollutant	Pre Control Emission Rate (tpy)	Post Control Emission Rate (tpy)	Control Device	Non-Exempt Regulation	Emission Limit	Subject ?	Reason	Designation
03	Steam Boiler No.3	SO ₂	622.0	622.0	None	SC Standard 1	2.3 lb/10 ⁶ Btu Input	No	No control device used to comply with limit	N/A
04	Steam Boiler No.4	SO ₂	622.0	622.0	None	SC Standard 1	2.3 lb/10 ⁶ Btu Input	No	No control device used to comply with limit	N/A
24	Film Line 9 and Tenter Ovens	PM ₁₀	142.0	6.40	Baghouses	SC Standard VIII	Per Equation	No	Baghouses not needed to meet limit	N/A
27	Flake Storage and Transfer	PM ₁₀	257	2.0	Baghouses	SC Standard VIII	Per Equation	Yes	Meets all 3 requirements to be subject	Other Than Large Unit
36	Film Line 10	PM ₁₀	215	5.0	Baghouses	SC Standard VIII	Per Equation	No	Baghouses not needed to meet limit	N/A



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PSEU CAM REQUIREMENTS							
PSEU	Equipment Name and ID	Applicable Requirement	Indicator and Measurement Approach	Monitoring Frequency	Range	Excursion	Averaging Period
27	Flake Silo 5-1 Baghouse 1PFHFS51C1	SC Standard 4 Section VIII Equation	Differential Pressure	Continuous	< 5.0 inches w.c.	< 5.0 inches w.c.	Each Daily
	Flake Silo 5-2 Baghouse 1PFHFS52C1		Visual Emissions		≤ 20% Opacity Each	≤ 20% Opacity Each	
	White Flake Silo Baghouse 1PFHFSWFC1						

AMBIENT AIR STANDARDS REVIEW	
Regulations	Comments/Periodic Monitoring Requirements
Standard No.2	This facility has demonstrated compliance with this standard by using air dispersion modeling. See modeling summary dated September 7, 2016.
Standard No.7.c	This facility is located in Greenville County. PSD minor source baselines for PM ₁₀ and SO ₂ were established in 2001. A PSD minor source baseline for NO ₂ was established in 1995. This facility has demonstrated compliance with this standard by using air dispersion modeling. See modeling summary dated September 7, 2016.
Standard No.8 (state only)	This facility has demonstrated compliance with this standard by using air dispersion modeling. See modeling summary dated September 7, 2016.

PUBLIC NOTICE

This Title V Permit will undergo a 30-day public notice period and a 45-day EPA comment period in accordance with SC Regulation 61-62.1, Section II.N. The comment period was open from December 14, 2017 to January 12, 2018 and was placed on the BAQ website during that time period.

SUMMARY AND CONCLUSIONS

It has been determined that this source, if operated in accordance with the submitted application, will meet all applicable requirements and emission standards.